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SOCIO-ECONOMIC FACTORS AND ACCESSIBILITY OF PRIMARY HEALTHCARE SERVICES ON CHILD HEALTH MANAGEMENT AMONG RURAL DWELLERS IN CENTRAL SENATORIAL ZONE OF TARABA, NIGERIA

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Abstract

In Nigeria, despite advancements in healthcare, rural communities contend with significant obstacles in accessing essential primary healthcare services. Rural dwellers mostly encounter restricted access to primary healthcare services, leading to delays in diagnosis and treatment. This limited accessibility contributes to preventable child health issues, resulting in elevated mortality rates for children under five years old. This study investigated socio-economic factors and accessibility of primary healthcare services on child health management among rural dwellers in Central Senatorial Zone of Taraba State, Nigeria. Social Determinants of Health (SDH) Theory was employed for the study. The study adopted cross sectional survey design, and Taro Yamane was employed to generate the sample size of 1,111 from the population of 1,135,100. The study employed both quantitative (questionnaire) and qualitative (Key Informant Interview) methods of data collection. Findings of the study revealed that socio-economic factors have significant influence on the accessibility of primary healthcare services on child health management in Central Senatorial Zone of Taraba State with the P-value of 0.000. This indicated that rural dwellers with higher levels of education, income, better jobs and those close to primary healthcare facilities easily access primary healthcare services compared to the majority with lower levels of education, income, occupation, and those far from primary healthcare facilities. Based on the findings of the study, it was recommended among others that, government should increase the provision of primary healthcare facilities that can be accessible to all rural dwellers in order to protect children from preventable diseases and curtail the rates of child mortality in rural areas.

Keywords: Accessibility, Child health, primary healthcare, rural dwellers, socio-economic

Introduction

Globally, despite advancements in healthcare, rural communities contend with significant obstacles in accessing essential primary healthcare services. The World Health

Organization (WHO) reports that nearly half of the global population lacks access to vital healthcare services, with rural areas bearing a disproportionate burden (WHO, 2019). This limited accessibility contributes to preventable child health issues, resulting in elevated mortality rates for children under five years old (UNICEF, 2019). Even in regions with well-established healthcare infrastructure like Europe and America, rural areas confront hurdles in healthcare accessibility. Residents in these locales often encounter restricted access to primary care services, leading to delays in diagnosis and treatment (Kaiser Family Foundation, 2019). In the United States, rural populations face disparities in healthcare access, influencing child health outcomes and widening health disparities (Rural Health Information Hub, 2021).

Asia, characterized by a diverse healthcare landscape, presents distinct challenges in ensuring rural healthcare accessibility. Factors such as geographical remoteness, economic considerations, and insufficient infrastructure contribute to the complexities of accessing primary healthcare services (World Bank, 2021). Children in remote Asian regions are particularly vulnerable to preventable diseases due to the inadequacies in healthcare accessibility (World Bank, 2021). In Africa, where healthcare disparities are stark, rural areas contend with substantial challenges in accessing primary healthcare. Sub-Saharan Africa, in particular, exhibits the highest under-five mortality rate globally, with preventable diseases constituting a significant proportion of child deaths (UNICEF, 2020). Limited healthcare infrastructure, a scarcity of healthcare professionals, and economic constraints characterize healthcare in rural African communities.

Within Nigeria, a nation marked by diverse healthcare dynamics, rural-urban disparities persist. The Nigerian Demographic and Health Survey (NDHS, 2018) underscores higher child mortality rates in rural areas compared to urban centers, accentuating the impact of

accessibility challenges on child health outcomes. Turning attention to Taraba State, the challenges in healthcare are exacerbated by constraints in income level, limited educational and occupational levels, and infrastructure, including challenging terrain. State-specific data from the Taraba State Ministry of Health further emphasizes disparities in child health outcomes (Taraba State Ministry of Health, 2021).

It is following from here that this study seeks to explore socio-economic factors and accessibility of primary healthcare services on child health management among rural dwellers in Central Senatorial Zone of Taraba State.

Socio-economic Factors and Accessibility of Primary Healthcare Services on Child Health Management among Rural Dwellers

Child health in rural areas is knottily related with socio-economic factors, emphasizing the need to comprehend how these elements shape health outcomes for children. Globally, socio-economic factors play a fundamental role in molding child health outcomes. Recognizing the intricate interplay between socio-economic status and child health, the World Health Organization (WHO) emphasizes the necessity for targeted interventions to address disparities (World Health Organization, 2017). In Europe, socio-economic factors contribute to health disparities among rural children. Studies indicate that regions with higher socio-economic status exhibit better child health outcomes, underscoring the need to address economic inequalities for enhanced child health management (Penchansky & Thomas, 1981).

In North America, including the United States and Canada, socio-economic factors, notably income disparities, significantly impact child health management. Research reveals that children from low-income families in rural areas often encounter challenges in accessing essential healthcare services, leading to disparities in health outcomes (Currie &

Stabile, 2003). In South America, socio-economic factors such as economic challenges and disparities affect child health outcomes in rural regions. Initiatives aimed at poverty reduction and improving access to healthcare services are crucial to mitigate the impact of socio-economic factors on child health (Cunningham & Shah, 2019). Asia contends with socio-economic factors, particularly rural poverty, influencing child health. Efforts to address these challenges involve implementing comprehensive social and health policies to uplift the socio-economic status of rural communities and enhance child health outcomes (Bhatia & Cleland, 2002). In Africa, socio-economic factors, primarily poverty, are critical determinants of child health in rural areas. Economic empowerment programs, coupled with targeted healthcare interventions, are essential for improving child health management and breaking the cycle of poverty-related health disparities (Fotso et al., 2018). In Nigeria, a nation with diverse socio-economic landscapes, addressing child health in rural areas requires targeted interventions. Socio-economic factors, including poverty and limited access to healthcare, pose challenges. The National Health Insurance Scheme (NHIS) and other poverty-alleviation programs aim to improve child health outcomes by addressing these socio-economic determinants (National Health Insurance Scheme, 2021).

Poverty, a pervasive socio-economic factor, significantly shapes child health in rural settings. Insufficient financial resources contribute to inadequate nutrition, limited access to healthcare, and substandard living conditions. Research consistently indicates that children from impoverished backgrounds face increased risks of health challenges, including malnutrition, higher rates of infectious diseases, and developmental delays (Currie & Stabile, 2011). Parental education levels play a pivotal role in child health management. Low educational attainment is often linked to reduced health literacy, hindering parents' ability to make informed

decisions about their child's well-being. Studies suggest that higher maternal education is associated with improved child health outcomes, as educated parents are more likely to adopt preventive health practices and seek timely medical care (Grossman, 2006).

Limited access to healthcare services poses a significant challenge in rural areas, impacting child health management. Scarcity of healthcare facilities, lengthy distances to medical centers, and financial constraints can result in delayed or inadequate healthcare for children. Enhancing healthcare access through initiatives like community clinics, mobile health units, and telemedicine services is essential for addressing this issue (Probst et al., 2019). The nature of employment and work conditions in rural areas can influence child health outcomes. Parents engaged in agriculture or informal sectors may struggle to balance work responsibilities with childcare, exposing children to potentially hazardous environmental conditions. Policies supporting family-friendly work environments and social safety nets can positively impact child health in rural settings (Huffman, Rizov, & Uzun, 2014).

Theoretical Framework: Social Determinants of Health (SDH) Theory

The Social Determinants of Health theory stresses that health outcomes are not solely influenced by individual behaviors but also by broader social, economic, and environmental conditions in which individuals reside. This theory underscores the impact of social factors such as income, education, employment, and social support on health disparities. In the phase of healthcare accessibility and child health, SDH theory emphasizes the role of socio-economic factors in shaping health outcomes. In addition, the theory of Social Determinants of Health (SDH) further added that health outcomes are shaped not only by individual behaviors and biological factors but also by broader societal, economic, and environmental conditions. This framework

underscores the influence of structural and systemic factors on health disparities

Components of the theory

- i. **Economic Stability:** Socioeconomic status, income, employment, and access to resources significantly impact health outcomes.
- ii. **Education:** The level of educational attainment plays a critical role in health, affecting knowledge, behaviors, and access to resources.
- iii. **Social and Community Context:** Factors such as social support, community engagement, and cohesion are critical determinants of health outcomes.
- iv. **Healthcare System:** Access to quality healthcare services, including affordability and cultural competence, is a determinant of health outcomes.
- v. **Neighborhood and Physical Environment:** Environmental aspects, such as housing conditions, access to nutritious foods, and exposure to pollutants, have an impact on health.

Application of the theory to the Study

Applying the SDH theory to the study involves examining how social and economic factors influence healthcare accessibility and

child health management in rural areas. For example, investigating how poverty, distance, educational and occupational levels influence the accessibility of primary healthcare services for the purpose of child health management in rural areas.

Research Methodology

The study adopted cross sectional survey design in so as to enable the researcher to generate relevant data in a short period of time from a sample as well as make generalization of the research result to the entire study's population. Taro Yamane formula was employed to generate the sample size of 1,111 from the population of 1,135,100 of Central Senatorial Zone of Taraba State. Both quantitative (questionnaire) and qualitative (Key Informant Interview) techniques of data collection were employed for the study.

Data Presentation, Analysis and Discussion of Findings

A total number of one thousand, one hundred and eleven (1,111) copies of questionnaire were administered to respondents. However, a total of one thousand and seventy-five (1,075) copies were returned as summarized in table 4.1:

Table 4.1: Administration and Retrieval of Questionnaire

Gender	Number administered	Number returned	Percentage returned
Male	507	494	
Female	604	581	
Total	1,111	1,075	97%

Source: Field Survey, 2023

Analysis of the study was based on 1,075(97%) copies of questionnaire that were returned from the field. The returned percentage was considered adequate for analysis.

Socio-Demographic Characteristics of Respondents

The data on table 4.2 below, presented the relevant socio-demographic characteristics of

respondents covered in the study. This was necessary in understanding the nature of respondents and their relevance in providing useful information necessary in addressing the study's objectives. It also had implications on the findings of the study and its generalizations. Analysis of these

characteristics indicated the suitability of the respondents and validity of findings.

Socio-demographic characteristics of the respondents showed that a majority of them were within the youthful ages of 18 to 49 years. Majority of the respondents were married which indicated that the study was actually anchored on the subject of discourse. The educational level of the respondents showed that, a majority of them have primary and secondary education, while a few proportion of the people were having tertiary education and others have no formal education. It was also revealed that most of the respondents were Christians. The occupational status of respondents revealed that 47.4% of the respondents were farmers while 23.2% were unemployed.

Data on the annual estimated income of the respondents revealed that a majority of them earned less than the approved Nigerian national minimum wage of N360, 000 per annum. This revealed that a majority of the respondents had relatively low financial status which possibly contributed to their difficulty in accessing primary healthcare facilities for the management of their children's health. The location of the respondents showed that, most of them (80.7%) were rural dwellers, which indicated that the study was actually anchored on the targeted study area. It was also revealed from the study's findings that most of the rural dwellers (66.2%) have no access to primary healthcare facilities for child's health management. The data is summarized in table 4.2.

Table 4.2: Distribution of Respondents by Demographic Characteristics

Variable	Categories	Frequency(N=1,075)	Percent
Sex	Male	494	46.9
	Female	581	54.0
Age	18-30	625	58.1
	31-49	398	37.0
	50 and Above	52	4.8
Marital status	Single	298	27.7
	Married	755	70.2
	Divorce/Separated/Widowed	22	2.0
Educational attainment	No formal	214	19.9
	Primary	389	36.2
	Secondary	295	27.4
	Tertiary	171	15.9
Occupation	Student	119	11.0
	Unemployed	250	23.2
	House wife	66	6.1
	Farming	510	47.4
	Civil servants	56	5.2
	Petty trading	74	6.9
Annual income	50,000	505	46.9
	51-100,000	146	13.5
	101-200,000	165	15.3
	201-300,000	163	15.1
	300,000 and above	96	8.9

Religion	Christians	670	62.3
	Muslims	317	29.5
	Traditional religion	50	4.6
	Free thinkers	38	3.5
Location	Rural	867	80.7
	Urban	208	19.3
Access to Primary Healthcare Facilities for Child's health Management	Yes	250	23.2
	I don't Know	113	10.5
	No	712	66.2

Source: Field Survey, 2023

Socio-economic factors and accessibility of primary healthcare services on child's health management among rural dwellers in Central Senatorial Zone of Taraba State

Findings on socio-economic factors and child's health management among rural dwellers showed acceptance of all the statements by revealing the mean value of

more than 2.50. The results indicated that income levels, educational levels, cost of primary healthcare facilities, occupational level, and the distance to primary healthcare facilities were responsible for child's health management among rural dwellers in Central Senatorial Zone of Taraba State. The findings were presented in table 4.2:

Table 4.3 Ratings on socio-economic factors and the accessibility of primary healthcare services on child's health management among rural dwellers Central Senatorial Zone of Taraba State

Statements	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Mean	Std
My present income/financial level does not allow me to access primary healthcare facilities.	502	70	126	345	32	3.88	0.987
My educational level does not permit me to seek for more awareness on the accessibility of primary healthcare facilities and child health management due to language barrier.	284	330	180	186	95	3.59	0.743
The cost of child health management at the primary healthcare facilities can't allow me to access any of the facilities.	665	386	10	11	3	4.59	0.692
My occupational level as a farmer does not allow my accessibility to any of the healthcare facilities because I only get money during harvest, so accessing any of the primary healthcare facilities is always difficult.	253	412	210	189	11	3.61	0.825
The distance to where primary healthcare facility is located cannot allow me to access it.	415	477	87	96	60	3.78	0.883

Source: Field Survey, 2023

The ratings on table 4.3 showed how socio-economic status of rural dwellers affect the accessibility of primary healthcare facilities for the management of child health in Central Senatorial Zone of Taraba State. All the statements had the means score of above 2.50,

which indicated their acceptance, and the table had the standard deviation value which range from 0.692 to 0.987. This indicated that, the opinion of the respondents on each variable converged closely around the mean. Disagreements, therefore, were minimal.

Table 4:4 Correlation Constructs between Income levels, Educational levels, Cost of Services, Occupational levels, and Distance/Location and the Accessibility of Primary Healthcare Services on Child Health Management among Rural Dwellers in Central Senatorial Zone of Taraba State

		Income Levels	Educational Levels	Cost of Services	Occupational Levels	Distance/Location
Income levels	Pearson Correlation	1	.632**	.699**	.629**	
Sig.(2-tailed)		.000	.000	.000	.000	
N		1,075	1,075	1,075	1,075	1,075
Education	Pearson Correlation	.632**	1	.510**	.611**	.720**
Sig.(2-tailed)		.000		.000	.000	.000
N		1,075	1,075	1,075	1,075	1,075
Cost of services	Pearson Correlation	.644**	.510**	1	.619**	.722**
Sig.(2-tailed)		.000	.000		.000	.000
N		1,075	1,075	1,075	1,075	1,075
Occupational levels	Pearson Correlation	.699**	.611**	.619**	1	.703**
Sig.(2-tailed)		.000	.000	.000		.000
N		1,075	1,075	1,075	1,075	1,075
Distance/Location	Pearson Correlation	.629**	.720**	.722**	.703**	1
Sig.(2-tailed)		.000	.000	.000	.000	
N		1,075	1,075	1,075	1,075	1,075

** . Correlation is significant at the 0.01 level (2-tailed).

The Table above presents the correlation coefficients of socio-economic factors and accessibility of primary healthcare services on child's health management among rural dwellers in Central Senatorial Zone of Taraba State. Income levels, educational levels, cost of health services, occupational levels, and distance to primary healthcare centers. The Table also provides Pearson correlation coefficients, which measure the strength and direction of the linear relationship between the variables. The correlation coefficients range from -1 to 1, where -1 indicates a perfect negative correlation, 1 indicates a perfect positive correlation, and 0 indicates no correlation.

Findings showed that higher income levels correlate strongly with improved accessibility to primary healthcare services for child health management while lower income levels implies difficulty in accessing primary healthcare services for child's health management with Pearson correlation

coefficient of 0.699**. Areas with higher educational levels demonstrate a strong positive correlation with better accessibility to primary healthcare services for children while areas with lower educational levels indicate less accessibility to primary healthcare services for child's health management with Pearson correlation coefficient of 0.720**. There is a positive correlation between the cost of health services and accessibility to primary healthcare, suggesting that increased service costs reduces accessibility while decreased cost of service increases accessibility to primary healthcare facilities with Pearson correlation coefficient of 0.644**. Higher occupational levels are positively correlated with better accessibility to primary healthcare services for child health management with Pearson correlation coefficient of 0.703**. This implies that since most rural dwellers have less occupational levels, they find it so hard to access primary healthcare facilities. Under distance, the study indicated that proximity to

primary healthcare facilities shows a strong positive correlation with accessibility to primary healthcare services, indicating that closer locations have better accessibility than far locations with the coefficient of 0.629**. This implies that rural dwellers who live far away from primary healthcare centers hardly access the facilities for child's health management within Central Senatorial Zone of Taraba State. All the variables were tested at the 0.01 level (2-tailed), with the P-value of 0.000.

The results from Key Informant Interviews (KII) corroborated the findings from the quantitative data.

A 46-year-old rural dweller in Gassol LGA of Central Taraba had this to say:

Let me sincere to you, we have primary healthcare center but distance and financial challenges cannot allow most of us to access the healthcare center. Due to that some of our children are dying from preventable diseases (KII, B1, Age 46, Gassol LGA).

Another respondent from Bali LGA stated that:

The distance to primary healthcare facilities in the rural areas within our Senatorial Zone is serious affecting the health and well-being of our children (KII, B2, Age 49, Bali LGA).

A 35-year-old Key respondent opined that:

What has not been encouraging us in visiting any of the primary healthcare centres within our Zone is as a result of lack of awareness on the benefits of orthodox medicine on the treatment of child's health condition. In addition to that, we feel traditional medicine work faster than foreign medicine, including the fact that most of us are farmers and not government workers who have more money than us. (KII, B3, Age 35, Kurmi LGA).

A 41 year old Key informant stated that:

The truth of the matter is that the distance to where most of the primary healthcare facilities are located cannot allow us to

access them for the management of our children's health (KII, B4, Age 41, Gashaka LGA).

According to a 49-year-old Key respondent, she had this to say:

Visiting healthcare facilities for check-up and treatment of our children's health has been a difficult task couples with our bad roads, and financial levels. Secondly, there are no provisions of vehicles particularly for emergency purposes by governments in rural areas within our Zone which will help in the quick response of child's health condition. These actually demotivate us in accessing any primary healthcare centres but visiting nearby traditional healers for our children health conditions (KII, B5, Age 49, Sarduna LGA).

The above expression demonstrated that socio-economic factors play significant role in the accessibility of primary healthcare centers on child health management among rural dwellers in Central Senatorial Zone of Taraba State.

Findings of the study were in line with Curie and Stabile (2003), who stated that insufficient financial resources contribute to inadequate nutrition, limited access to healthcare, and substandard living conditions. Research consistently indicates that children from impoverished backgrounds face increased risks of health challenges, including malnutrition, higher rates of infectious diseases, and developmental delays. Grossman (2006), opined that parental educational levels play a significant role in child health management. Low educational attainment is often linked to reduced health literacy, hindering parents' ability to make informed decisions about their child's well-being. Studies suggest that higher maternal education is associated with improved child health outcomes, as educated parents are more likely to adopt preventive health practices and seek timely medical care.

Probst et al. (2019), revealed that scarcity of healthcare facilities, lengthy distances to

medical centers, and financial constraints can result in delayed or inadequate healthcare for children. Enhancing healthcare access through initiatives like community clinics, mobile health units, and telemedicine services is essential for addressing this issue. Huffman, Rizov, and Uzun (2014), asserted that the nature of employment and work conditions in rural areas can influence child health outcomes. They further stated that parents who engaged in agriculture or informal sectors may struggle to balance work responsibilities with childcare, exposing children to potentially hazardous environmental conditions.

Conclusion and Recommendations

Findings of the study revealed that socio-economic factors have significant influence on the accessibility of primary healthcare services on child health management in Central Senatorial Zone of Taraba State. This indicated that rural dwellers with higher levels of education, income, better jobs and those close to primary healthcare facilities easily access primary healthcare services compared to the majority with lower levels of education, income, occupation, and those far from primary healthcare facilities. All the variables were tested at the significant level of 0.01 (2-tailed), with the P-value of 0.000.

Based on the findings of the study, it was recommended among that, government should increase the provision of primary healthcare facilities that can be accessible to all rural dwellers in order to protect children from preventable diseases and curtail the rates of child mortality in rural areas. In addition, government should empower rural dwellers through entrepreneurial skills, and also provide emergency vehicles to primary healthcare centers within rural areas.

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